

BACK SURGERY: MODERN MEDICAL PITFALL

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ABSTRACT

Medical iatrogenesis is at an all-time high with increasing deaths, disability, and costs compounded by unnecessary and ineffective surgeries despite the warnings from WHO, the US Public Health Service, and the Institute of Medicine. One area in particular, failed back surgeries, has drawn increasing attention by researchers due to disproved medical theories and surgical treatments. Paradoxically, while spinal manipulative therapy has been shown to achieve better results for this epidemic of low back pain in particular, medical and insurance programs often limit or boycott this inexpensive and effective treatment, indicating the solution to lowering medical costs and iatrogenesis now rests with political and economic factors primarily. (J Chiropr Med 2002;1:9–15)

KEY WORDS: Medical Iatrogenesis; Chiropractic; Joint Dysfunction; Distributive Justice

Quality health care in America is a paradox: many Americans mistakenly believe the US has the best quality healthcare in the world, but healthcare authorities and comparative statistics disagree. For example, the World Health Organization (WHO) report released in June 2000 ranked the US 37th in the world in overall health system performance and 72nd on population health (1).

Other studies indicate that traditional medicine as practiced in the US is risky business, such as the recent report from the Institute of Medicine (IOM) that as many as 98,000 people may die from medical mistakes annually (2). And that may be a low-ball figure, as other experts believe since many medical mistakes are misinterpreted, unreported or ignored. In fact, other estimates tell us that as many as 230,000 to 280,000 deaths occur annually due to medical mistakes (3).

The lack of public outcry about these medical revelations is troublesome in and of itself. When Firestone tires on Ford Explorers cause the recent deaths of 174 people, the press and politicians immediately jumped on this case. Although only 483 people have died in airline accidents from 1995 to 1999, the government again demanded changes in design on faulty rudders on Boe-

ing 737s. But, when hundreds of thousands of patients die from medical mistakes annually, these same authorities remain surprisingly silent. Part of the reason is the lack of some specific entity to blame, and the misguided notion that many patients harbor, simply that "my doctor is good but others are a problem."

Medical Paradox

The chiropractic profession knows only too well the frustration of this paradox. A plethora of recent research and government inquiries have repeatedly shown the failure of back surgery for the epidemic of low back pain (LBP) that affects 9 out of 10 adults sometime in their lifetime. This silent epidemic of back pain is the leading cause of disability for people under the age of 45, and costs \$50 to 75 billion annually (4).

A Harvard researcher testified before the U.S. Congress that some tens of thousands of unnecessary low back surgeries are performed each and every year in the United States. While looking at these figures, keep in mind that they do not even begin to speak of the true impact of what lies behind them—the permanent disability and the lost self-esteem of injured workers with failed back surgery syndrome, the huge costs to industry, and the avoidable deaths.

For example, Lucien Leape, the Harvard University professor who performed the initial study (5) on these deaths, also stated that the U.S. House Subcommittee on Oversight and Investigations has extrapolated figures from a frequency rate of unnecessary surgeries (17.6%) in this country to equate to 2.4 million unnecessary operations performed annually, resulting in a cost of \$3.9 billion and 11,900 deaths.

Two Epidemics: Back Pain and Back Surgery

To relate these figures to back surgery, 17.6% of the more than 500,000 lower back surgeries performed each year would equal 88,000 unnecessary surgeries, at a hospital cost of \$11,000 per surgery (6) for a total cost of \$968 million. Again, this 17.6% rate for unnecessary surgery is a conservative figure for back surgeries in as much as the AHCPR experts admit that back surgery is helpful in only one in 100 cases of back surgery (4).

In fact, this epidemic of back injuries is fueled in part by unnecessary, ineffective, and expensive back surgeries that could have been avoided by the use of chiropractic

care and active rehab measures. Hubert L. Rosomoff, MD, from the University of Miami, called a moratorium on back surgeries when he realized, after 2 weeks of rehabilitation, his back patients no longer required surgery. "Following this kind of concept, you can eliminate 99% of the surgical cases. In fact, the incidence of surgery if one really looks at this appropriately is one in 500" (7).

According to Dr. Lynn Johnson, director of the Center for Pain Medicine of North Carolina, while back surgery has a place, there are too many surgeries being done, and that most doctors fail to apply conservative measures such as chiropractic, physical therapy, and minimally invasive surgical techniques before suggesting surgery (7).

Many health insurance programs like the Blues still deny or severely limit access to and treatment by chiropractors, and many workers' compensation programs also limit chiropractic care to injured workers despite the overwhelming evidence supporting spinal manipulative therapy as well as evidence indicating the ineffectiveness of spinal surgery. Part of the problem and the reason for the ongoing denial is the long-standing medical influence on these huge insurance conglomerates.

The Failure of Back Surgery

"Just about any approach is better than having surgery because all the studies have shown that, if you take a surgical population and non-surgical population, they all seem to do the same in five years," Dr. Lynn Johnson believes (7).

Indeed, many medical researchers now admit that the medical management of this epidemic has added to the problem with unnecessary drugs and ineffective back surgery, and admit that chiropractic spinal manipulation may be the best solution for the majority of these LBP problems.

In fact, Gordon Waddell, M.D., renowned orthopedist and spine researcher, states, "Low back pain has been a 20th century health care disaster . . . Medical care certainly has not solved the everyday symptom of low back pain and even may be reinforcing and exacerbating the problem . . . Medical care for low back pain in the United States is specialist-oriented, of high technology, and of high cost, but 40% of American patients seek chiropractic care for low back pain instead" (8).

Another study confirmed that patients were more satisfied with chiropractic care than other treatments for low back pain. T.W. Meade, M.D., of the Wolfson Institute

of Preventive Medicine, London, UK, surveyed patients at 3 years and found that "significantly more of those patients who were treated by chiropractic expressed satisfaction with their outcome at three years than those treated in hospitals—84.7% vs. 65.5%" (9).

Research repeatedly has shown the poor results from back surgery, including a recent study by Dr. E. Berger published in *Surgical Neurology* that showed the high rates of permanent disability from spinal fusions (10).

One thousand workers' compensation patients who had undergone lumbar spinal surgery were divided into 2 groups: 1 group consisted of 600 patients with single operations, evaluated on average 51 months after surgery; and the second group consisted of 400 with multiple operations, evaluated 38 months postoperatively. The results were stunning, to say the least. 71% of the single-operation group had not returned to work more than 4 years after the operation, and 95% of the multiple-operations had not returned to work. In none of these cases was there a neurological deficit that precluded gainful employment—the failure to return to work being blamed on chronic postoperative pain (10).

Other medical researchers have also concluded that spinal surgery is ineffective and costly. At the University of Miami Comprehensive Pain and Rehabilitation Center, Dr. H.L. Rosomoff concluded:

"Further, low back pain in the population at large is not usually a surgical problem, and the chances of there being significant pathology requiring surgical or other forms of intervention may be less than 1% of those affected . . . Low back pain per se is in the majority not a neurologic problem, an orthopedic problem, or a neurosurgical problem, so that consultation with these groups, unless there are strong suspicions otherwise, has limited value" (11).

Federal Guideline Recommends Spinal Manipulation First

Due to this epidemic of LBP and the huge costs, the US Public Health Service's Agency for Health Care Policy and Research (AHCPR) conducted what many people consider to be the most extensive study ever done consisting of a 2-year study of nearly 4,000 articles from the National Library of Medicine, which led to a 1994 federal guideline on acute low back pain in adults.

The 23-member expert panel's recommendations stunned the medical profession for many reasons, such as their recommendation of spinal manipulation as a "Proven Treatment" for acute low back pain in adults. This guideline states: "This treatment (using the hands to apply force to the back to 'adjust' the spine) can be

helpful for some people in the first month of low back symptoms. It should only be done by a professional with experience in manipulation [chiropractors]" (4).

This federal guideline on acute low back pain also did not recommend treatments commonly done by physical therapists and medical doctors.

"A number of other treatments are sometimes used for low back symptoms. While these treatments may give relief for a short time, none have been found to speed recovery or keep acute low back problems from returning. They may also be expensive." Such treatments include:

- Traction
- TENS
- Massage
- Biofeedback
- Acupuncture
- Injections into the back
- Back corsets
- Ultrasound

This guideline also did not endorse the prolonged use of strong medications for back pain. The guideline recommends NSAIDs instead of pharmaceuticals. Plus, pain pills only mask the problem without correcting the underlying cause, and they may cause serious side effects and organ damage.

"For most people, medicine works well to control pain and discomfort. But any medicine can have side effects. For example, some people cannot take aspirin or ibuprofen because it can cause stomach irritation and even ulcers. Many medicines prescribed for low back pain can make people feel drowsy. These medicines should not be taken if you need to drive or use heavy equipment" (4).

The most shocking recommendation in this federal guideline focused on back surgery. This expert panel found back surgeries to be costly, based on misleading tests, and were generally ineffective.

"Even having a lot of back pain does not by itself mean you need surgery. Surgery has been found to be helpful in only 1 in 100 cases of low back problems. In some people, surgery can even cause more problems. This is especially true if your only symptom is back pain" (4).

The Reason Why Spinal Manipulation Is Effective

To understand why spinal manipulation done by chiropractors is more effective than physical therapy and surgery is to understand the basic anatomy of the spine itself. Unlike what most people have been told by their health care practitioners, the main cause of back is not from "slipped disks" as much as from "slipped joints."

In the human spine there are 24 vertebrae, 3 pelvic bones, and the skull all interconnected by 137 joints.

Whenever someone experiences trauma such as a fall, car accident, prolonged sitting and standing, or lifting improperly, the spine is subjected to an overload of pressure upon these joints and spinal muscles. Just as one can sprain the small joints in the bones in an ankle, most back problems are caused from the sprain/strain of these small synovial joints in the spine and the tearing of the spinal soft-tissues around the joints such as muscles, ligaments or tendons. Nerve compression, better known as "pinched nerves," also can occur when the vertebrae are misaligned, leading to radiating pain down the leg, known as "sciatica" or radiculopathy.

While disks may swell in this process, disk herniation is not the primary cause of low back pain. In fact, most spinal experts now agree that joint dysfunction is the main cause of back pain (12), which may explain why manipulation has been effective. This also explains why spinal fusion fails to resolve back pain since the joints are still misaligned. Until these spinal joints are restored to normal motion and stability, back pain is inevitable and re-occurring, which may explain why most back surgery victims never return to work.

A recent article in the *New England Journal of Medicine* acknowledged that most back pain is "mechanical" in nature, meaning joint dysfunction. According to Dr. Richard Deyo's article, "Differential Diagnosis of Low Back Pain," he showed that "Mechanical Low Back or Leg Pain" constituted 97% of these cases, of which "lumbar strain, sprain" accounted for 70% of these cases; "Nonmechanical Spinal Conditions [disc problems] accounted for "about 1%"; "Visceral Disease" [referred pain from a diseased organ] accounted for 2%" (13).

Dr. Deyo also criticizes the over-reliance on imaging for low back problems. "Early or frequent use of these tests [Computed tomography (CT) and MRI] is discouraged, however, because disk and other abnormalities are common among asymptomatic adults. Degenerated, bulging, and herniated disks are frequently incidental findings, even among patients with low back pain, and may be misleading. Detecting a herniated disk on an imaging test therefore proves only one thing conclusively: the patient has a herniated disk."

The US federal guideline also concurred on the misleading interpretation of MRI exams to convey the notion of disk problems as the cause of back pain:

"Degenerative discs, bulging disc and even herniated discs are part of the aging process for the spine and may be irrelevant findings: they are seen on imaging tests of the lumbar spine in a significant percentage of subjects with no history of low back problems. Therefore, abnormal imaging findings seen in a patient with acute low back problems may or may not be related to that individual's symptoms (4).

This points out the single-most prevalent cause of misdiagnosis in low back pain problems—that is, the use of MRI images to show disc abnormalities to convince patients that some sort of disk problem is the cause of their pain. In fact, as Deyo and other researchers have repeatedly shown, disc abnormalities are not the cause of back pain. Patients without any back pain often have degenerated or herniated disks, while many patients with back pain have perfectly healthy spines.

This outdated concept is the major pitfall in this medical scam, and one the public is largely unaware of. Richard Deyo mentions this problem of medical mistakes in low back treatments: “Calling a [medical] physician a back-pain expert, therefore, is perhaps faint praise—medicine has at best a limited understanding of the condition. In fact, medicines’ reliance on outdated ideas may have actually contributed to the problem” (14).

Misinformation in Health Care

Despite the failure of medical methods to stem this epidemic of low back pain, and despite the recent research supporting the obvious superiority of chiropractic care, the medical status quo remains intractable to implementing this alternative. Whether it’s chiropractic care in lieu of back surgery, or chelation therapy in lieu of bypass surgery, or herbal therapy in lieu of pharmaceuticals, the health care system has ignored the call for quality improvements and alternatives despite the glaring poor statistics that have now surfaced and the growing popularity of alternative health care (15).

The tendency to ignore research, alternatives and guidelines that conflict with the status quo is not a new phenomenon. For example, the release of the AHCPR federal guideline on acute LBP was delayed for months due to an injunction filed by the orthopedic society that disagreed with its findings. And when the guideline was finally released, an orthopedic group sued the members of the expert panel, their own colleagues.

Unable to accept expert criticism of spinal surgery, the North American Spine Society (NASS) protested the AHCPR research team’s alleged bias and ineptitude, and it harshly criticized one of the preferred forms of therapy (spinal manipulation). Furthermore, they took their attack on the AHCPR to Capitol Hill. A NASS board member/surgeon created a bogus patient lobbying group called the Center for Patient Advocacy that deluged Congress with misinformation about AHCPR. This effort led the House of Representatives to pass a 1996 budget with zero funding for the AHCPR. Only after great efforts in the Senate to expose the reasons for the attacks was it possible to salvage some funding for

the AHCPR. Ironically, its guideline development work was curtailed, even though it was originally ordered to do so by a 1989 Congressional mandate. Obviously, the wishes of special interests like AMA’s political action committee supersedes Congress.

Apparently the AMA special interest groups were successful in eliminating the messengers who reported the many ineffective and costly medical procedures that have driven up health care costs to the trillion-dollar range. A member of the AHCPR panel, Richard Deyo, MD, co-authored in *The New England Journal of Medicine* an article, “The Messenger Under Attack—Intimidation of Researchers by Special Interest Groups.” He wrote, “The huge financial implications of many research studies invite vigorous attack . . . Intimidation of investigators and funding agencies by powerful constituencies may inhibit important research on health risks and rational approaches to cost-effective health care” (16).

Perhaps Dr. Deyo is feeling the same type of venomous response to the AHCPR’s guideline that the chiropractic profession has felt from other biased reports. Deyo has written many articles dealing with the ineffectiveness of spinal surgeries, especially spinal fusions. In the AHCPR’s Clinical Practice Guideline, the section on Spinal Fusion clearly summarizes the research.

“There appears to be no good evidence from controlled trials that spinal fusion alone is effective for treatment of any type of acute low back problems in the absence of spinal fractures or dislocation. . . . Moreover, there is no good evidence that patients who undergo fusion will return to their prior functional level” (4).

For decades medicine and its political machine has called for research from the chiropractic profession to prove itself, yet, when it is finally done by the most universally accepted and acclaimed expert group of researchers ever assembled, the AMA still refuses to acknowledge their findings. Incredibly, the medical misinformers then published in May 1995, only a few months after the AHCPR’s low back pain guideline came out in December 1994, their version of proper spinal treatments in a small booklet, “AMA Pocket Guide to Back Pain,” published by Random House. The cover of the pocket guide claims it contains: “The latest information on all treatment options, including medications, physical therapy and surgery.”

Despite the fact that spinal manipulative therapy is recommended by the U.S., U.K. and Canadian studies (AHCPR (4), Meade (17), Manga (18)), neither chiropractic care nor SMT are even mentioned, plus the AMA’s pocket guide includes many recommendations that contradict the findings of the AHCPR expert panel.

Although it does state that there are “More than 100 separate joints connecting the bones of the spine to each other and to other bones,” no mention of manipulative therapy is given whatsoever. It seems obvious that the AMA is willing to misrepresent the scientific research and governmental endorsements that conflict with its own vested interests despite the harm it will cause patients who naively follow this ineffective, outdated advice.

The Wrong Way to Get Well

Apparently there are *right* ways to get treated, and *wrong* ways, depending upon who profits. Forget about research and cost-effectiveness studies, money seems to be the driving force in health care today. The flap over the AHCPR guidelines, the gutting of the Agency’s budget and the consequent lawsuits filed against the researchers clearly illustrates the wrath of the medical powers.

Dr. James S. Gordon, a Harvard-trained psychiatrist who runs the Center for Mind-Body Medicine in Washington and former chairman of the advisory council to the Office of Alternative Medicine at the National Institutes of Health, states, “They seem to see themselves functioning not as scientists in the truest sense of the word, but as guardians of orthodoxy. The history of science is the history of comings and goings of different kinds of orthodoxy.”

More bluntly put, Dr. Tom Delbanco, chief of general medicine at Beth Israel Deaconess Medical Center and co-author with Eisenberg on the trend to alternatives, mentioned in Mr. Tye’s article that, “We are beginning to see a battle for the dollars.” With a multi-billion dollar LBP industry, medicine is unlikely to gladly accept any evidence that SMT is more cost and clinically effective than medical methods, research be damned, unless, of course, studies like Carey’s (19) or Cherkin’s (20) support their cause (21).

Perverse Motivation

Considering the plethora of recent research (18) that shows the cost and clinical-effectiveness of manipulative spinal therapy (SMT) compared to the medical methods for the vast majority of back problems. Knowing the low back pain business is a \$50–75 billion industry in the U.S. alone, logic would dictate that the most cost effective methods would be or should be employed.

As all business owners know, workers’ compensation insurance is a very expensive program and, when used, employers are penalized with higher rates. This is espe-

cially true if the workers’ compensation carrier is a “for-profit” insurer as opposed to “self-insured.” Most employers do not realize that these carriers work on a “cost-plus” basis, which explains why these insurers are not concerned about increasing expenses. They simply charge higher premiums to cover their costs.

This for-profit, cost-plus incentive is the leading economic reason why the better mousetrap concept is being ignored in health care. Medical economists and futurists, such as Clement Bezold, Ph.D of the Institute for Alternative Futures deem this incentive as a “perverse motivation” (22). This cost-plus, perverse motivation is one reason why workers’ compensation insurance is so expensive—there is no real incentive on the insurers’ parts to decrease costs. Simply put: higher gross cash flow = higher percentage take.

A Focus on a Solution

In this light, ignoring chiropractic care for back pain is woefully outdated clinically, perpetuates inadequate standards of care, a waste of tax money, increases the cost of health insurance premiums for consumers, and it denies patients access to the best care possible. This has led to increased costs for employers and increased unsuccessful outcomes for patients. In all, this medical scenario has lead to low quality care for patients with back problems.

It also has denied doctors of chiropractic the right to compete on a level playing field, which is the keystone of a free enterprise society that fosters the better mousetrap concept to allow better products and services to prevail. As noted, only in health care is this market competition discouraged or ignored. The concept of free market forces in health care is referred to by Dr. Pran Manga, medical economist, as “distributive justice.”

“We would argue that the principle of distributive justice, and a parallel principle of equality of opportunity, require that the government implement all cost-effective substitutions; failure to do so results in unfairness to the taxpayers and unfairness to certain health care professionals . . . The monopolization of the health care services turf is also inequitable from yet another perspective. It denies some professions equal opportunity to earn income commensurate with their ability, effectiveness and effort . . . Inefficient use of health human resources is not just economically wasteful, it is also inequitable and generates higher levels of taxation . . . Equity is likely to become more important as the struggle over the health care turf becomes fiercer, and as taxpayers demand even greater value for the taxes they pay” (23).

“Chiropractic care is a cost-effective alternative to the management of neuromusculoskeletal conditions by other professions. It is also safer and increasingly accepted

by the public, as reflected in the growing use and high patient retention rates. There is much and repeated evidence that patients prefer chiropractic care over other forms of care for the more common musculoskeletal conditions . . . The integration of chiropractic care into the health care system should serve to reduce health care costs, improve accessibility to needed care, and improve health outcomes" (24).

Cutting Chiropractic, Not Surgery

A poignant illustration of the perverse motivation in health care insurance companies, recently Aetna announced it was cutting back on chiropractic treatment due to heavy losses. Aetna plans to limit the number of chiropractic treatments it covers, according to *The New York Times*. The cut will make up for losses associated with other soaring health care costs, such as prescription drugs and outpatient surgery. Aetna posted a first-quarter loss of \$48.2 million (24).

Despite the overwhelming proof of the clinical and cost-effectiveness of chiropractic care for the majority of LBP cases, Aetna thumbs its nose at these facts rather than following the numerous guidelines that recommend SMT over expensive and ineffective back surgery. And it's not just Aetna that has this discriminatory policy. The Blues also have severely limited chiropractic care in terms of visits allowed and remuneration

What's the Answer?

It's obvious the medical gatekeepers and health insurance industry have no interest in utilizing chiropractic care as Dr. Manga and the AHCPR suggest to improve patient outcomes and to save costs. As long as for-profit, cost-plus insurance exists, there will never be an interest in the better mousetrap that is safer, cheaper and better.

We need to take an innovative approach to this boycott, and our colleague, Dr. Robert Mootz, may have the answer with a new marketing approach that bypasses the insurance brokers and goes straight to the consumers.

"Demand management," as defined by Dr. Robert Mootz in his *DC* article (26), *Demand Management: The Next Big Thing?* "sometimes referred to as demand moderation, is a set of behavioral change strategies directed at consumers and providers to affect how they respond to indications of injury, illness and disease. Typically, the strategies include community-wide or targeted group education to help consumers interpret signs and symptoms, learn self-care strategies, obtain ready access to diagnostic information, and in some cases, even deploy alternative "expert" access mechanisms, such as medical consultation by phone, website, or other means.

"The concept of demand management is being harnessed. Ideally, demand management is a strategy aimed at fostering informed, appropriate demands by consumers for medical and pharmaceutical interventions, with greater reliance on self-diagnosis, care, and social support. Advantages and limitations depend on the stability of the condition, the level of commitment of the consumer, and the integrity of the demand management strategies. A successful example is the public/private partnerships in diabetes education."

Rather than waiting for the medical professionals to refer Musculoskeletal Disorders (MSDs) to DCs, a demand management PR campaign to educate consumers about the clinical and cost-effectiveness of SMT for this epidemic of MSDs could do wonders to circumvent the covert boycott of the medical gatekeepers. As Dr. David Eisenberg found in his two surveys about the trend to alternative health care methods, the American baby-boomers make informed decisions about their health care, and we must make our science better known to these consumers (15).

As Dr. Mootz mentioned in his article, "The distinguishing characteristic of demand management is the promotion of patient knowledge in the choices of care and providers." Regrettably, we as a profession have failed to do so.

Unfortunately, the chiropractic profession has lacked the skill to teach the public about its services with supportive research and clinical guidelines that have accrued in the last decade. Despite RAND, Manga I & II, AHCPR, Meade, and the many other notable research studies noted in this paper, the public is unaware of these supportive studies. Nor are they aware of the plethora of research that condemns the onslaught of failed back surgery. And until this information becomes common knowledge they may never know.

With new technology emerging and new communication channels such as the Internet, more and more information is being distributed to the public. Additionally the ages of reporters are younger and younger and this new generation of reporter is not locked into the old model of believing everything that is fed to them. They are for the most part skeptical of drugs, understand iatrogenic complications and are not deluded by the word of organized medicine. The public is being informed on an almost daily basis about new treatment options, new alternatives and new concepts. Nothing will stop the quest for information and nothing will hold back the advancements that will ensure a procedure that is conservative, cost-effective, and has a high degree of patient satisfaction from emerging.

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